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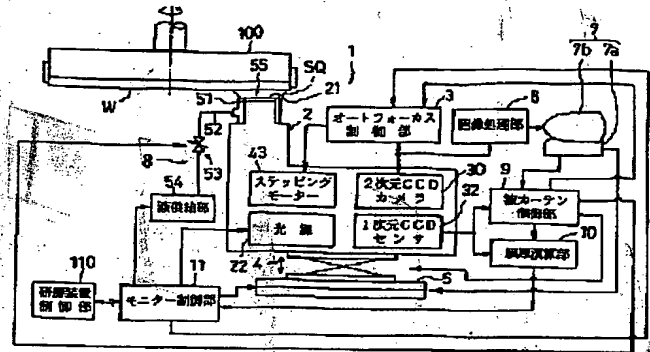
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APPLICANT : DAINIPPON SCREEN MFG CO LTD;

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TITLE : POLISHING TREATMENT MONITORING DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To measure the thickness of a film to be polished by forming a bubble- free liquid curtain.

SOLUTION: A polishing treatment monitoring device 1, which is attached to a polishing device and monitors the progress of polishing treatment by measuring the thickness of a film to be polished, applied to the surface of a substrate during the polishing treatment forms a liquid curtain by filling up a measuring area 55 between a measuring window 21 of a measuring unit 2, which measures the separated spectrum of light reflected from the surface of the substrate W and the surface of the substrate W with a cleaning solution. A liquid curtain control section 9 adjusts the interval between the measuring window 21 and the surface of the substrate W, through a feedback control by controlling an elevating/lowering driving mechanism 4, so as to eliminate the variation of the bubble characteristic which occurs in the separated spectrum of the reflected light measured by means of the measuring unit 2 caused by bubbles in the measuring area 55, while checking the variation of the bubble characteristic.

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